# LEISURE PARK (PWSNO 1280117) SOURCE WATER ASSESSMENT REPORT

June 26, 2001



# State of Idaho Department of Environmental Quality

**Disclaimer:** This publication has been developed as part of an informational service for the source water assessments of public water systems in Idaho and is based on the data available at the time and the professional judgement of the staff. Although reasonable efforts have been made to present accurate information, no guarantees, including expressed or implied warranties of any kind, are made with respect to this publication by the state of Idaho or any of its agencies, employees, or agents, who also assume no legal responsibility for the accuracy of presentations, comments, or other information in this publication. The assessment is subject to modification if new data is produced.

# **Executive Summary**

Under the Safe Drinking Water Act Amendments of 1996, all states are required by the U.S. Environmental Protection Agency to assess every source of public drinking water for its relative sensitivity to contaminants regulated by the act. This risk assessment is based on a land use inventory in the well recharge zone, sensitivity factors associated with how the well was constructed, and aquifer characteristics.

This report, *Source Water Assessment for Leisure Park*, describes the public drinking water wells; the well recharge zone and potential contaminant sites located inside the recharge zone boundaries. This assessment, taken into account with local knowledge and concerns, should be used as a planning tool to develop and implement appropriate protection measures for this public water system. The results should <u>not be</u> used as an absolute measure of risk and they should <u>not be</u> used to undermine public confidence in the water system.

Leisure Park drinking water is supplied by two deep wells pumping from the Rathdrum Prairie Aquifer. The water system serves a population of about 170 people in a planned adult community in Hayden Lake, Idaho. Historically, Leisure Park has had problems with bacterial contamination in the well and distribution system. Water from the wells is chlorinated for that reason. A groundwater Susceptibility Analysis conducted by DEQ May 10, 2001 found the wells to be at high risk for bacterial contamination because of the system's history and at moderate risk for chemical contamination, mostly because of natural factors associated with local geology.

This assessment should be used as a basis for determining appropriate new protection measures or reevaluating existing protection efforts. No matter what ranking a source receives, protection is always important. Whether the source is currently located in a "pristine" area or an area with numerous industrial and/or agricultural land uses that require education and surveillance, the way to ensure good water quality in the future is to act now to protect valuable water supply resources.

Source water protection activities for Leisure Park should incorporate a variety of strategies. The park needs to continue to maintain the well lots as areas where no materials hazardous to ground water are used or stored. Backflow prevention devices should be installed on sprinkler systems. The park should coordinate with the City of Coeur d'Alene because the city's use of drywells for disposal of large volumes of water from storage towers may affect other water systems in the vicinity.

Because 186 public water systems in Idaho draw water from the Rathdrum Prairie Aquifer, they should consider forming a regional group to represent their interests before state, county and municipal governing bodies when regulatory tools like zoning overlays, or enactment of building codes are the most appropriate ground water protection measures. Partnerships with state and local agencies and industry groups should also be established.

Due to the time involved with the movement of ground water, source water protection activities should be aimed at long-term management strategies even though these strategies may not yield results in the near term. For assistance in developing protection strategies, please contact your regional Department of Environmental Quality office or the Idaho Rural Water Association.

## SOURCE WATER ASSESSMENT FOR LEISURE PARK

### **Section 1. Introduction - Basis for Assessment**

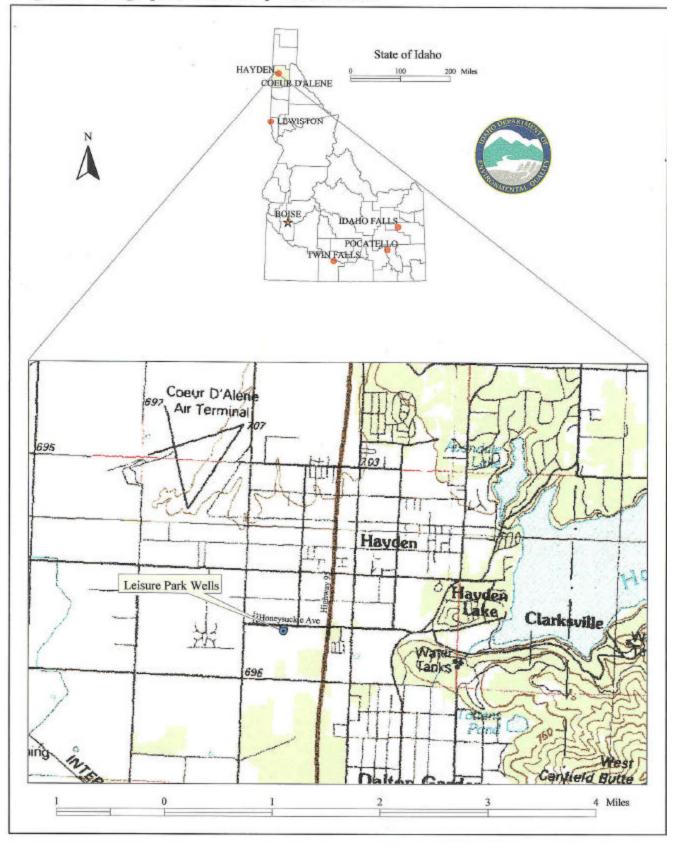
The following sections contain information necessary for understanding how and why this assessment was conducted. It is important to review this information to understand what the ranking of this source means. A map showing the delineated source water assessment area and an inventory of significant potential sources of contamination identified within that area are included. The ground water susceptibility analysis worksheets used to develop this assessment are attached.

## Level of Accuracy and Purpose of the Assessment

The Idaho Department of Environmental Quality (DEQ) is required by the U.S. Environmental Protection Agency (EPA) to assess every public drinking water source in Idaho for its relative susceptibility to contaminants regulated by the Safe Drinking Water Act. These assessments are based on a land use inventory inside the delineated recharge zones, sensitivity factors associated with how the well is constructed, and aquifer characteristics. The state must complete more than 2900 assessments by May of 2003. Because resources and the time available to accomplish assessments are limited, an in-depth, site-specific investigation for every public water system is not possible.

The results of the source water assessment should <u>not be</u> used as an absolute measure of risk and they should <u>not be</u> used to undermine public confidence in the water system. The ultimate goal of this assessment is to provide data to local communities for developing a protection strategy for their drinking water supply. The Idaho Department of Environmental Quality recognizes that pollution prevention activities generally require less time and money to implement than treating a public water supply system once it has been contaminated. DEQ encourages communities to balance resource protection with economic growth and development. The decision as to the amount and types of information necessary to develop a source water protection program should be determined by the local community based on its own needs and limitations. Wellhead or source water protection is one facet of a comprehensive growth plan, and it can complement ongoing local planning efforts.

Figure 1. Geographic Location of Leisure Park



# **Section 2. Preparing for the Assessment**

## **Defining the Zones of Contribution - Delineation**

The delineation process establishes the physical area around a well that will become the focal point of the assessment. The process includes mapping the boundaries of the well recharge area into time of travel zones (zones indicating the number of years necessary for a particle of water to reach a well) for water in the aquifer. DEQ used a refined computer model approved by the EPA to determine the time of travel (TOT) for water Leisure Park pumps from the Rathdrum Prairie Aquifer. The computer model used data assimilated by DEQ from a variety of sources including the well log for Leisure Park Well #2. No well log is on file for Well #1.

Leisure Park serves a community of approximately 170 people located in the vicinity of Hayden Lake in Kootenai County, Idaho (Figure 1). Public drinking water for Leisure Park customers is supplied by a well field comprised of two wells about 100 feet apart.

The delineated source water assessment area for Leisure Park is a narrow corridor stretching eastward for about 2 miles from the wells to the edge of the aquifer at Honeysuckle Bay on Hayden Lake. (Figure 2). The estimated time of travel from the lake to the wells is about 10 years.

## **Identifying Potential Sources of Contamination**

The goal of the inventory process is to locate and describe those facilities, land uses, and environmental conditions that are potential sources of ground water contamination. Inventories for public water systems in Idaho were conducted in two-phases. The first phase involved identifying and documenting potential contaminant sources within the Leisure Park source water assessment area through the use of computer databases and Geographic Information System maps developed by DEQ. Bob Chandler, who manages the water system for Leisure Park Homeowners' Association, documented additional sites in the well recharge zones during for the second phase of the potential contaminant inventory

Figure 2, Leisure Park Delineation and Potential Contaminant Inventory on page 7 of this report shows the location of the Leisure Park wells, and the zones of contribution DEQ delineated for them. Land use in the well recharge zone includes low-density residential, commercial and urban development and some agriculture. Homes in the area are either on a municipal sewage system or have residential septic systems. Highway 95 crosses the 1 to 3 year time of travel zone for the wells. Government Way, another heavily traveled road, crosses the 3-to6 year time of travel zone. Table 2 on page 8 of this report summarizes information about the numbered potential contaminant sites inside the delineated area on the map.

Many potential sources of contamination are regulated at the federal level, state level, or both to reduce the risk of release. When a business, facility, or property is identified as a potential contaminant source, this should not be interpreted to mean that this business, facility, or property is in violation of any local, state, or federal environmental law or regulation. What it does mean is that the <u>potential</u> for contamination exists due to the nature of the business, industry, or operation.

# **Section 3. Susceptibility Analysis**

The susceptibility to contamination of all groundwater sources in Idaho is being assessed on the following factors:

- physical integrity of the well,
- hydrologic characteristics,
- land use characteristics, and potentially significant contaminant sources
- historic water quality

The susceptibility rankings are specific to a particular potential contaminant or category of contaminants. A high susceptibility rating relative to one potential contaminant does not mean that the water system is at the same risk for all other potential contaminants. The relative ranking that is derived for each well is a qualitative, screening-level step that, in many cases, uses generalized assumptions and best professional judgement. The following summaries describe the rationale for the susceptibility ranking. The Susceptibility Analysis Worksheets for the Leisure Park wells, Attachment A, show in detail how the wells scored.

#### **Well Construction**

Well construction directly affects the ability of the wells to protect the aquifer from contaminants. Lower scores imply a well that can better protect the water. This portion of the susceptibility analysis relies on information from individual well logs and from the most recent sanitary survey of the public water system.

The Leisure Park drinking water system has two wells extracting ground water for irrigation and domestic uses. A standby chlorinator is available to treat the water before distribution. Well #1 was drilled sometime before 1985 to a depth of 314 feet. No well driller's report is on file for Well #1, so some construction and hydrogeologic data usually found on the well log was not available for the susceptibility analysis. Well #2, drilled in 1992 to a depth of 360 feet, has a 10-inch casing with a wall thickness of 0.25 inches. Current Idaho Department of Water Resources regulations require a minimum thickness of 0.365 inches for 10 inch diameter steel casing. The well seal, extending about 40 feet below the surface into a layer of gravel and coarse sand, exceeds the required depth. However, points were marked against the well because the seal and casing terminate in permeable, unconsolidated soil strata typical of the Rathdrum Prairie Aquifer. Table 1 summarizes construction and site characteristics for the well.

Table 1. Selected Construction Characteristics of Leisure Park Well

Well	Total Depth (ft.)	Depth of Surface Seal (ft)	Depth of Casing (ft)	Well Screen Depth Range (ft)	Static Water Level (ft
Well #1	314	Unknown	Unknown	Unknown	282
Well #2	350	40	360	335-355.5	278

· Figure 2. Leisure Park Delineation and Potential Contaminant Inventory. 116°48' 116 47 30 116°47' 116°46' 116 45 30 47046 JENSEN DR ADY BUG N Leisure Park Wells 6 SLESTONE CT Honeysu HERON AVE HAYDEN VIEW DR WOODLAND DR 0 116°48' 116 47'30 116°47' 116 46'30 116°46' 116 45'30 0.5 1.5 Miles 0.5 Legend RICRIS Site AST Business Mailing List Recharge Point Dairy SARA Title III Site (EPCRA) LUST Site Injection Well 6+10 Years Group1 Site UST Site Enhanced Inventory Cyanide Site Business Mailing List NPDES Sine Wastervater Land App Site PWS # 1280117 CERCLIS Situ X Mine Well #1 and #2

# **Hydrologic Sensitivity**

The hydrologic sensitivity scores for the Leisure Park Wells #1 and #2 were 6 and 5 points respectively out six points possible. The scores reflect natural geologic conditions at the well sites and in the recharge zone. The depth to ground water is greater than 300 feet in Well#2, which provides some protection from potential contaminants through adsorption and other mechanisms. The depth where ground water was first encountered in Well #1 is not known. Sand, gravel and cobbles fill the soil strata between the topsoil and the water table. There is not a significant clay layer retarding the vertical transport of contaminants. The soils in the recharge zone as a whole are well drained. Poorly drained to moderately well drained soils are deemed more protective of ground water than soils which drain faster.

#### **Potential Contaminant Sources and Land Use**

Land use within The Leisure Park well recharge zone is a mixture of residential, urban, commercial and agriculture. Hazardous materials such as herbicides, paint and petroleum products stored in the pump house and on the well lot at Leisure Park were removed following a Sanitary Survey in 1998. Highway 95, about 0.4 miles from the wells and crossing the 1 to 3 year time-of-travel boundaries, carries a high volume of traffic with the associated potential for spills from vehicles carrying hazardous materials or petroleum products. Traffic and businesses on Government Way pose less of a threat since they are further from the well.

**Table 2. Leisure Park Potential Contaminant Inventory** 

MAP ID	SITE DESCRIPTION	SOURCE OF	POTENTIAL CONTAMINANTS <sup>1</sup>
NUMBER		INFORMATION	
1	Highway 95	USGS and County Maps	IOC, SOC, VOC, Microbial
2	Government Way	USGS and County Maps	IOC, SOC, VOC, Microbial
3	Car Wash	Enhanced Inventory	IOC, SOC, VOC
4	Car Lubrication Shop	Enhanced Inventory	IOC, SOC, VOC
5	Auto Detailing	Enhanced Inventory	IOC, SOC, VOC
6	Gravel Pit	Mines Database	

<sup>&</sup>lt;sup>1</sup> IOC = inorganic chemical, VOC = volatile organic chemical, SOC = synthetic organic chemical

### **Historic Water Quality**

Positive bacterial samples on record for in the early 1990s prompted installation of a chlorinator. Nitrate concentrations have fluctuated from undetectable levels to 2.36 mg/l. The Maximum Contaminant Level (MCL) for nitrate is 10 mg/l.

Synthetic organic compounds and volatile organic compounds have never been detected in the wells. Radiological contaminants in concentrations far below MCL have been present since testing began in 1988.

# **Final Susceptibility Ranking**

The Leisure Park wells ranked highly susceptible to microbial contamination based on the system's history. The Wells ranked moderately susceptible to all classes of regulated chemical contaminants, mostly because of natural geologic conditions associated with the Rathdrum Prairie Aquifer. Total scores in each category are summarized on Table 3. The complete susceptibility analysis worksheets for the wells can be found in Attachment A.

The final scores for the susceptibility analysis were determined using the following formulas:

- 1) VOC/SOC/IOC Final Score = Hydrologic Sensitivity + System Construction + (Potential Contaminant/Land Use x 0.2)
- 2) Microbial Final Score = Hydrologic Sensitivity + System Construction + (Potential Contaminant/Land Use x 0.35)

The final ranking categories are as follows:

- 0 5 Low Susceptibility
- 6 12 Moderate Susceptibility
- > 13 High Susceptibility

Table 3. Summary of Leisure Park Susceptibility Evaluation

Cumulative Susceptibility Scores							
Well Name	System I Construction	Hydrologic	Contaminant Inventory				
		Sensitivity	IOC	VOC	SOC	Microbial	
Well #1	4	6	10	10	10	High*	
Well #2	4	5	10	10	10	High*	
Final Susceptibility Ranking							
	IOC		VOC	,	SOC	Microbial	
Well #1	Moderate N		Ioderate	Mo	oderate	High*	
Well #2	Moderate M		Ioderate	Mo	oderate	High*	

IOC = inorganic chemical, VOC = volatile organic chemical, SOC = synthetic organic chemical

HIGH\* - Indicates source automatically scored as high susceptibility due to presence of bacteria or a VOC, SOC or an IOC above the maximum contaminant level in the tested drinking water

# **Section 4. Options for Source Water Protection**

The susceptibility assessment should be used as a basis for determining appropriate new protection measures or re-evaluating existing protection efforts. No matter what the susceptibility ranking a source receives, protection is always important. Whether the source is currently located in a "pristine" area or an area with numerous industrial and/or agricultural land uses that require education and surveillance, the way to ensure good water quality in the future is to act now to protect valuable water supply resources.

An effective source water protection program is tailored to the particular local source water protection area. The state and local health districts have instituted enhanced protection of the ground water in the Rathdrum Prairie Aquifer because of its high use and uniquely pristine water quality. The protections are generally aquifer wide and are not aimed at zones of contribution to a specific well or water system. *The Spokane Valley-Rathdrum Prairie Atlas*, sent to water systems on the prairie when they were invited to perform an enhanced contaminant inventory, describes some of the regional protection measures.

The 186 public water systems in Idaho that draw water from the Rathdrum Prairie Aquifer should consider forming a regional group to represent their interests before state, county and municipal governing bodies when regulatory tools like zoning overlays, or enactment of building codes are the most appropriate ground water protection measures. These types of measures could be used to protect the capture zones of a specific system or group of wells that could be put at risk from local land use changes.

In its own service area, Leisure Park needs to continue to maintain the sanitary set back zones around the wells as areas where no solvents, petroleum products, herbicides, fertilizers or other potential pollutants are stored or applied. It may be useful to have a written maintenance plan to pass along to future facilities managers explaining why the pumphouse and well lot can't be used for paint or yard chemical storage. The park should institute a program for prevention of backflow from sprinkler systems. Water users can be invited to participate in voluntary ground water protection activities like household hazardous materials collection days. The district can distribute pollution prevention booklets to businesses in its recharge zone that outline industry specific best management practices for prevention of ground water pollution.

Partnerships with state and local agencies and industry groups should also be established. For instance, the park should enlist the cooperation of the City of Coeur d'Alene since the city's use of drywells for disposal of large volumes of water from its storage towers could affect wells in the vicinity. Due to the time involved with the movement of ground water, wellhead protection activities should be aimed at long-term management strategies even though these strategies may not yield results in the near term.

## Assistance

Public water suppliers and users may call the following IDEQ offices with questions about this assessment and to request assistance with developing and implementing a local protection plan. In addition, draft protection plans may be submitted to the IDEQ office for preliminary review and comments.

Coeur d'Alene Regional DEQ Office (208) 769-1422

State IDEQ Office (208) 373-0502

Website: <a href="http://www2.state.id.us/deq">http://www2.state.id.us/deq</a>

Water suppliers serving fewer than 10,000 persons may contact John Bokor, Idaho Rural Water Association, at (208) 343-7001 for assistance with wellhead protection strategies.

#### **References Cited**

Great Lakes-Upper Mississippi River Board of State and Provincial Public Health and Environmental Managers, 1997. "Recommended Standards for Water Works."

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Idaho Department of Water Resources, 1993. Administrative Rules of the Idaho Water Resource Board: Well Construction Standards Rules. IDAPA 37.03.09.

Natural Resource Conservation Service, 1991. Idaho Snake-Payette Rivers Hydrologic Unit Plan of Work. March 1991.

United States Geological Survey, 1986. Quality of Ground Water in the Payette River Basin, Idaho. United States Geological Survey. Water Resources Investigation Report 86-4013.

University of Idaho. 1986. Ground Water Resources in a Portion of Payette County, Idaho. Idaho Water Resources Research Institute. University of Idaho. Moscow, Idaho. April 1986.

# Attachment A

Leisure Park
Susceptibility Analysis
Worksheets

## **Ground Water Susceptibility Analysis**

Public Water System Name :	LEISURE PARK	Source: WELL 1
Public Water System Number :	1280117	5/8/01 10:14:09 AM
1 System Construction		SCORE

	******				
1. System Construction		SCORE			
Drill Date	UNKNOWN				
Driller Log Available	NO				
Sanitary Survey (if yes, indicate date of last survey)	YES	0			
Well meets IDWR construction standards	UNKNOWN	1			
Wellhead and surface seal maintained	YES	0			
Casing and annular seal extend to low permeability unit	UNKNOWN	2			
Highest production 100 feet below static water level	NO	1			
Well located outside the 100 year flood plain	YES	0			
Total System Construction Score		4			
2. Hydrologic Sensitivity					
Soils are poorly to moderately drained	NO	2			
Vadose zone composed of gravel, fractured rock or unknown	YES	1			
Depth to first water > 300 feet	NO	1			
Aquitard present with > 50 feet cumulative thickness	NO	2			
Total Hydrologic Score		6			
		IOC	VOC	SOC	Microbial
3. Potential Contaminant / Land Use - ZONE 1A (Sanitary Setback)		Score	Score	Score	Score
Land Use Zone 1A	AGRICULTURAL	2	2	2	2
Farm chemical use high	NO	0	0	0	
IOC, VOC, SOC, or Microbial sources in Zone 1A	YES	NO	NO	NO	YES
Total Potential Contaminant Source/Land Use Score - Zone 1A		2	2	2	*HIG
Potential Contaminant / Land Use - ZONE 1B ( 3 YR. TOT)					**
Contaminant sources present (Number of Sources)	YES	1	1	1	1
(Score = # Sources X 2 ) 8 Points Maximum		2	2	2	2
Sources of Class II or III leacheable contaminants or Microbials	YES	1	1	1	
4 Points Maximum		1	1	1	
Zone 1B contains or intercepts a Group 1 Area	NO	0	0	0	0
Land use Zone 1B	25 to 50% Irrigated Agricultural Land	2	2	2	2
Total Potential Contaminant Source / Land Use Score - Zone 1B		5	5	5	4
Potential Contaminant / Land Use - ZONE II (6 YR. TOT)					
Contaminant Sources Present	YES	2	2	2	
Sources of Class II or III leacheable contaminants or Microbials	YES	1	1	1	
Land Use Zone II	Less than 25% Agricultural Land	0	0	0	
Potential Contaminant Source / Land Use Score - Zone II	Ü	3	3	3	0
Potential Contaminant / Land Use - ZONE III (10 YR. TOT)					
Contaminant Source Present	NO	0	0	0	
Sources of Class II or III leacheable contaminants or Microbials	NO	0	0	0	
Is there irrigated agricultural lands that occupy > 50% of Zone	NO	0	0	0	
Total Potential Contaminant Source / Land Use Score - Zone III	•	0	0	0	0
Cumulative Potential Contaminant / Land Use Score		10	10	10	6
4. Final Susceptibility Source Score		12	12	12	12
5. Final Well Ranking		Moderate	Moderate	wiouerate	*HIGH

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#### **Ground Water Susceptibility Analysis**

Public Water System Name: LEISURE PARK Source: WELL 2 Public Water System Number: 1280117 5/8/01 10:14:30 AM 1. System Construction SCORE Drill Date 7/9/92 Driller Log Available YES YES 1998 Sanitary Survey (if yes, indicate date of last survey) Well meets IDWR construction standards NO 1 Wellhead and surface seal maintained YES 0 Casing and annular seal extend to low permeability unit NO 2 Highest production 100 feet below static water level NO Well located outside the 100 year flood plain YES 0 Total System Construction Score 4 2. Hydrologic Sensitivity NO Soils are poorly to moderately drained 2 Vadose zone composed of gravel, fractured rock or unknown YES 1 Depth to first water > 300 feet YES 0 Aquitard present with > 50 feet cumulative thickness NO 2 Total Hydrologic Score 5 IOC VOC SOC Microbial 3. Potential Contaminant / Land Use - ZONE 1A (Sanitary Setback) Score Score Score Score Land Use Zone 1A AGRICULTURAL 2 2 2 2 Farm chemical use high NO 0 0 0 IOC, VOC, SOC, or Microbial sources in Zone 1A YES YES NO NO NO Total Potential Contaminant Source/Land Use Score - Zone 1A 2 2 2 \*HIG Potential Contaminant / Land Use - ZONE 1B ( 3 YR. TOT) Contaminant sources present (Number of Sources) YES 1 1 1 1 (Score = # Sources X 2 ) 8 Points Maximum 2 2 2 2

Sources of Class II or III leacheable contaminants or Microbials	YES	1	1	1	
4 Points Maximum		1	1	1	
Zone 1B contains or intercepts a Group 1 Area	NO	0	0	0	0
Land use Zone 1B	25 to 50% Irrigated Agricultural Land	2	2	2	2
Total Potential Contaminant Source / Land Use Score - Zone 1B		5	5	5	4
Potential Contaminant / Land Use - ZONE II (6 YR. TOT)					
Contaminant Sources Present	YES	2	2	2	
Sources of Class II or III leacheable contaminants or Microbials	YES	1	1	1	
Land Use Zone II	Less than 25% Agricultural Land	0	0	0	
Potential Contaminant Source / Land Use Score - Zone II		3	3	3	0
Potential Contaminant / Land Use - ZONE III (10 YR. TOT)					
Contaminant Source Present	NO	0	0	0	
Sources of Class II or III leacheable contaminants or Microbials	NO	0	0	0	
Is there irrigated agricultural lands that occupy $> 50\%$ of Zone	NO	0	0	0	
Total Potential Contaminant Source / Land Use Score - Zone III		0	0	0	0
Cumulative Potential Contaminant / Land Use Score		10	10	10	6
4. Final Susceptibility Source Score		11	11	11	11
5. Final Well Ranking		Moderate	Moderate	Moderate	*HIGH

# POTENTIAL CONTAMINANT INVENTORY LIST OF ACRONYMS AND DEFINITIONS

<u>AST (Aboveground Storage Tanks)</u> – Sites with aboveground storage tanks.

<u>Business Mailing List</u> – This list contains potential contaminant sites identified through a yellow pages database search of standard industry codes (SIC).

<u>CERCLIS</u> – This includes sites considered for listing under the Comprehensive Environmental Response Compensation and Liability Act (CERCLA). CERCLA, more commonly known as Superfund is designed to clean up hazardous waste sites that are on the national priority list (NPL).

<u>Cyanide Site</u> – DEQ permitted and known historical sites/facilities using cyanide.

<u>Dairy</u> – Sites included in the primary contaminant source inventory represent those facilities regulated by Idaho State Department of Agriculture (ISDA) and may range from a few head to several thousand head of milking cows.

<u>Deep Injection Well</u> – Injection wells regulated under the Idaho Department of Water Resources generally for the disposal of stormwater runoff or agricultural field drainage.

Enhanced Inventory – Enhanced inventory locations are potential contaminant source sites added by the water system. These can include new sites not captured during the primary contaminant inventory, or corrected locations for sites not properly located during the primary contaminant inventory. Enhanced inventory sites can also include miscellaneous sites added by the Idaho Department of Environmental Quality (DEQ) during the primary contaminant inventory.

**Floodplain** – This is a coverage of the 100year floodplains.

<u>Group 1 Sites</u> – These are sites that show elevated levels of contaminants and are not within the priority one areas.

<u>Inorganic Priority Area</u> – Priority one areas where greater than 25% of the wells/springs show constituents higher than primary standards or other health standards.

<u>Landfill</u> – Areas of open and closed municipal and non-municipal landfills.

<u>LUST (Leaking Underground Storage Tank)</u> – Potential contaminant source sites associated with leaking underground storage tanks as regulated under RCRA.

<u>Mines and Quarries</u> – Mines and quarries permitted through the Idaho Department of Lands.)

<u>Nitrate Priority Area</u> – Area where greater than 25% of wells/springs show nitrate values above 5mg/l.

NPDES (National Pollutant Discharge Elimination System) – Sites with NPDES permits. The Clean Water Act requires that any discharge of a pollutant to waters of the United States from a point source must be authorized by an NPDES permit.

<u>Organic Priority Areas</u> – These are any areas where greater than 25 % of wells/springs show levels greater than 1% of the primary standard or other health standards.

**Recharge Point** – This includes active, proposed, and possible recharge sites on the Snake River Plain.

<u>RICRIS</u> – Site regulated under <u>Resource Conservation Recovery</u> <u>Act (RCRA)</u>. RCRA is commonly associated with the cradle to grave management approach for generation, storage, and disposal of hazardous wastes.

SARA Tier II (Superfund Amendments and Reauthorization Act Tier II Facilities) – These sites store certain types and amounts of hazardous materials and must be identified under the Community Right to Know Act.

Toxic Release Inventory (TRI) – The toxic release inventory list was developed as part of the Emergency Planning and Community Right to Know (Community Right to Know) Act passed in 1986. The Community Right to Know Act requires the reporting of any release of a chemical found on the TRI list.

<u>UST (Underground Storage Tank)</u> – Potential contaminant source sites associated with underground storage tanks regulated as regulated under RCRA.

<u>Wastewater Land Applications Sites</u> – These are areas where the land application of municipal or industrial wastewater is permitted by DEQ.

<u>Wellheads</u> – These are drinking water well locations regulated under the Safe Drinking Water Act. They are not treated as potential contaminant sources.

**NOTE:** Many of the potential contaminant sources were located using a geocoding program where mailing addresses are used to locate a facility. Field verification of potential contaminant sources is an important element of an enhanced inventory.

Where possible, a list of potential contaminant sites unable to be located with geocoding will be provided to water systems to determine if the potential contaminant sources are located within the source water assessment area.

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